TMO

Targets Management Office

Purpose:

Provide An Overview Of Army TMO Activities

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OUTLINE

TMO

Targets Management Office

- Mission/Activities
- Targets Reliance Concept
- Customer Base
- Organization
- Army Targets Programs
  - Aerial Projects
  - Ground Projects
  - Range Systems Projects
- Virtual Targets

TMO MISSION

TMO

Targets Management Office

Manage the Life Cycle Acquisition of Technically Optimized, Interoperable and Adaptable Targets, Target Control Systems and Ground Range Systems used in the Live and Virtual Testing, Training and Mission Rehearsal Environments, Providing Best Value Procurement, and Superior Life Cycle Sustainment and Operation when required, for The U.S. Army Transformation, Future Forces, Joint Services, Allied Clients and Governmental Agencies

PRIMARY ACTIVITIES

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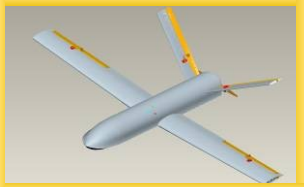
Targets Management Office



Based on customer target requirements

- **Aerial Targets – Fixed and Rotary Wing**
- **Ground Targets – Mobile (Actual/Surrogates)**
- **Virtual Targets – Models and Simulations**
- **Range Targetry Systems**
- **Auxiliary / Ancillary Equipment**

Video

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RELIANCE

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Target Control Systems
Air Force

Target Augmentation Systems
Navy

Full-scale Fixed Wing Aerial Targets
Air Force

T&E and Training

Target On-board Scoring Systems
Navy

Rotary Wing Aerial Targets
Army

TARGET RELIANCE LEAD

Meet all service needs within prevailing financial constraints

Mobile Ground Targets
Army

Ballistic Missile Targets
MDA

Non-mobile Ground Targets
Air Force

Missile Targets (Non-space)
Navy

Subscale Fixed Wing Targets
Navy

Seaborne Targets
Navy

Towed Aerial Targets
Army

Anti-radiation Missile Targets
Navy

CUSTOMERS

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TEST COMMUNITY

Weapon System Developers
- PEOs/PMs
- AMCOM
- TACOM
- USMC
- USAF
- Navy
- MDA

Test Agencies/Ranges
- ATEC
- AFOTEC
- Eglin AFB
- China Lake
- Redstone
- WSMR
- YPG
- Pt. Mugu
- Edwards AFB
- APG
- MCOTEA

Labs and RDECs
- Armament RDEC
- Army Research Lab
- Aviation & Missile RDEC

TRAINING COMMUNITY

Major Commands
- FORSCOM
- EUSA
- TRADOC
- USARPAC
- USAREUR

Army National Guard

Army Schools/Combat Training Centers
- Armor
- Field Artillery
- Aviation
- Infantry
- NTC
- JRTC
- CTC
- Air Defense Artillery

Government Ranges
- Ft. Bliss
- Ft. Irwin
- Ft. Campbell
- Ft. Polk
- Ft. Hood
- Ft. Lewis/Yakima
- Ft. Drum

FMS Customers

- Denmark
- Japan
- Netherlands
- Taiwan
- Egypt
- Jordan
- Norway
- Tunisia
- Germany
- Korea
- Portugal
- Turkey
- Israel
- Kuwait
- Saudi Arabia
- Italy
- Morocco
- Switzerland

ORGANIZATION

TMO

Targets Management Office

Program Executive Office Simulation, Training, and Instrumentation (PEO STRI)
Dr. Jim Blake

Project Manager For Instrumentation, Targets and Threat Simulators (PM ITTS)
COL Steve Rust

Instrumentation Management office (IMO)

Targets Management Office (TMO)
Steve Milburn, Director
Al Brown, Deputy Director
Eric Hoffman, Secretary
Glenda Jenss, Administration

Threat Systems Management Office (TSMO)

Business Management Division
Charles Farrior, Chief

Technical Management Division
Beau Beaufait, Chief

Evaluation & Requirements Division
Glenn Schaffer, Chief

Operations Division
Bob Jeffreys, Chief

ARMY TARGETS PROGRAM

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Aerial

Ground

Virtual

All 3 Domains!

AERIAL TARGETS

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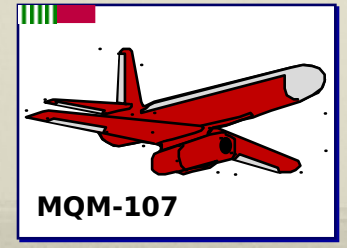
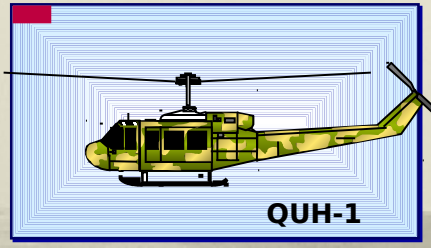
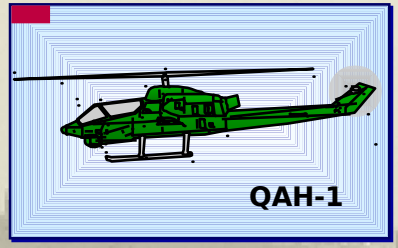
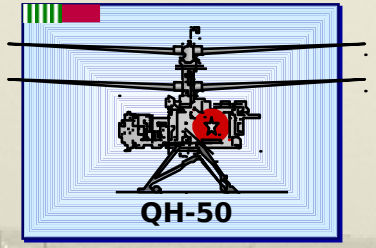
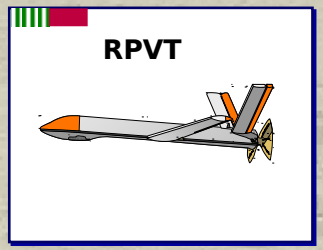
Rotary Wing Reliance Lead

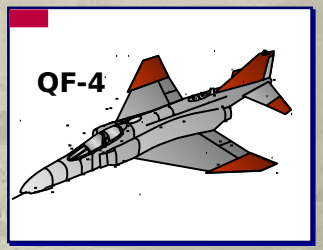


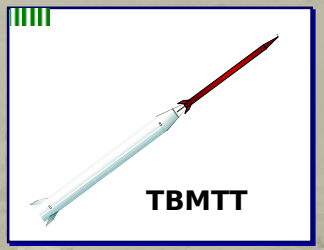


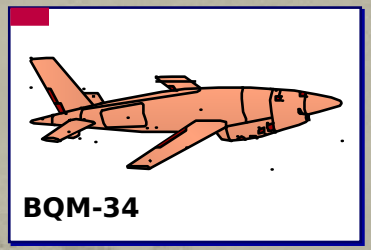


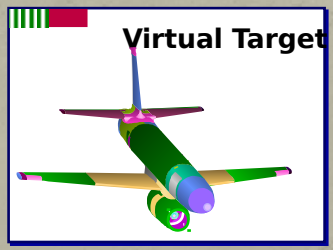


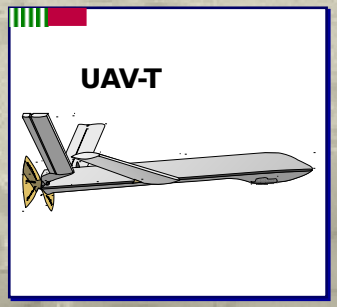


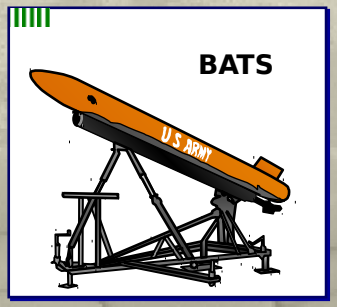


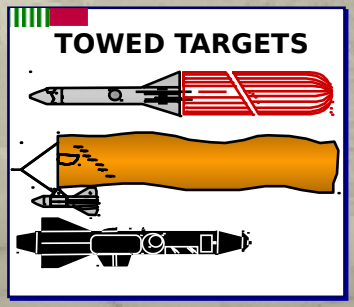


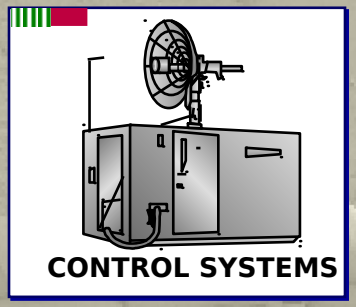


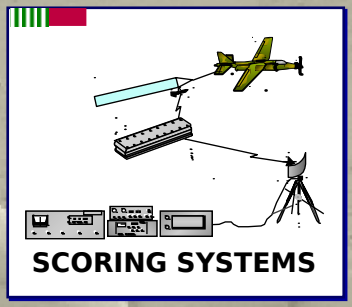












Use: Training T&E

MQM-107

- Operable from sea level to 40,000 ft.
- Speed – 540 knots max
- Variable turns to 6.25 G’s
- Internal payload 100 lbs max
- External payload 200 lbs max

Unmanned Aerial Vehicle – Target (UAV-T)

- Operable from 305 m to > 3.6 km AGL
- Speed: 133 knots max
- Payload: ≈ 40 lbs
- Pneumatic Launch

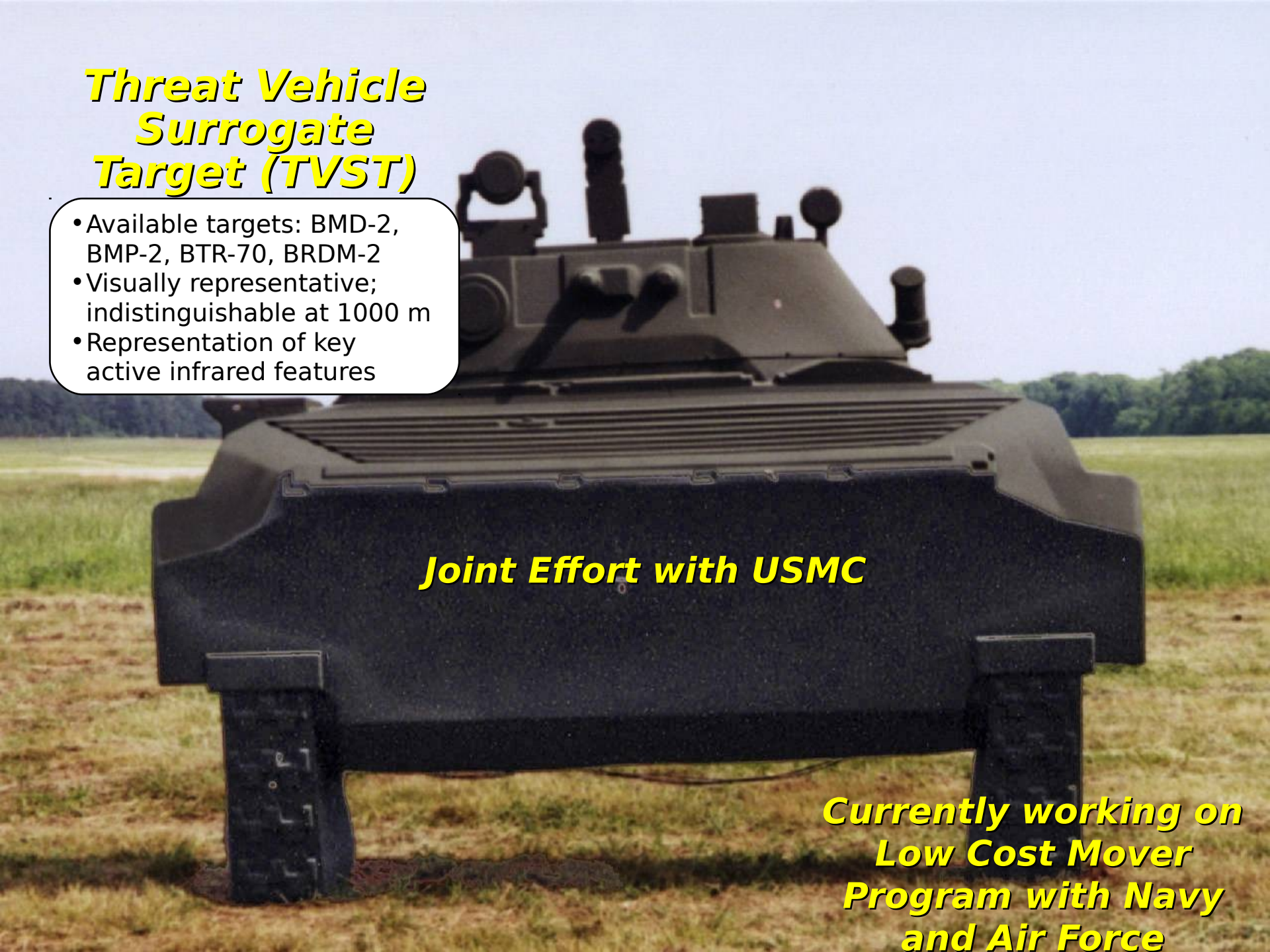
Surrogate

Reliance Lead

Foreign Fleet

Threat Vehicle Surrogate Target (TVST)

- Available targets: BMD-2, BMP-2, BTR-70, BRDM-2
- Visually representative; indistinguishable at 1000 m
- Representation of key active infrared features



Joint Effort with USMC

Currently working on Low Cost Mover Program with Navy and Air Force

RANGE TARGET SYSTEMS

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Range Technologies App Pr

Designed to bring technology (i.e. bullet sensing, IR targets) to the range faster.

Precision Scoring

Technology that provides efficient marksmanship training.

VIRTUAL TARGETS CENTER

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The **Virtual Targets Center** is a collaborative effort of AMC's RDEC System Simulation Development Division and the PEO STR's PM ITTS.

Target Generation Laboratory

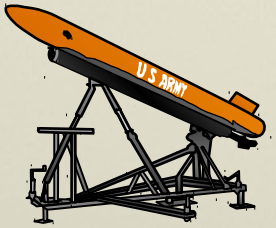
Makes it happen

Virtual Targets Center

On Web

http://modelexchange.army.mil

What we do



Develop products

Buy

AND we

- Fly ’em
- Drive ‘em
- Fix ‘em

WORLD WIDE OPERATIONS

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MOBILE GROUND TARGET OPERATIONS

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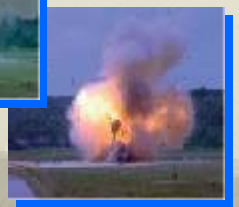
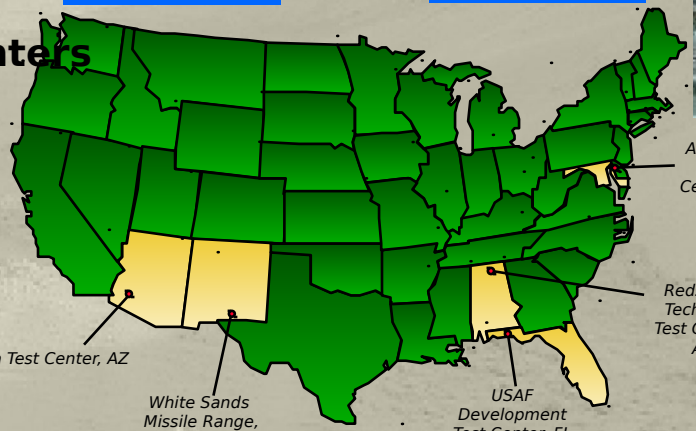
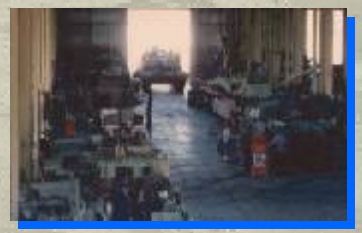
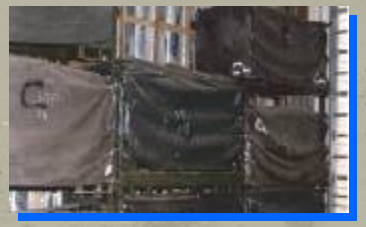
Targets Management Office (TMO) provides ground targets for destructive and nondestructive testing. TMO owns and operates a fleet of ~ 350 foreign target assets and surrogates in support of DoD customers at five Primary Operating Centers (POCs).




Aberdeen Test Center, MD
Redstone Technical Test Center, AL
Yuma Test Center, AZ
White Sands Missile Range, NM Warehouse & Primary Operations Center
USAF Development Test Center, FL





UPCOMING WORK

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Targets Management Office

- Low Cost Mover
- Full Scale Fixed Wing Target
- Sub-scale Target Buy
- Range Technology Application Project
  - Bullet Sensor
  - IR Targets
- Scoring

LOW COST TARGET MOVER

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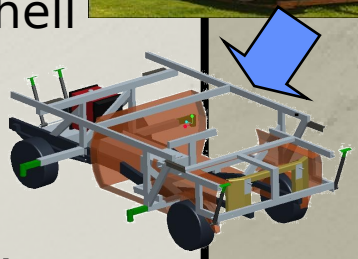
- *Purpose:*
  - Inexpensive and flexible target mover for Tri-service test and training

- *Overview:*
  - Concept selected: commercial vehicle + target shell
  - Coordinate w/Navy TMI+REP and USAF/ACC
    - Navy selected TCS: TVARCS/TTCS hybrid
  - General specifications:
    - Speed, durability, terrain, payload, power, interface, formation, …



Schedule:

	FY04	FY05	FY06
Analysis/select concept			
Requirements/interfaces			
Prototype/integration			
Testing/documentation			

Funding:

($K)	FY04	FY05	FY06	Total
Army TMO	$0	$25	$25	$50
OSD	$205	$330	$575	$1,110
Total	$205	$355	$600	$1,160

FIREFOX CONCEPTUAL DESIGN STUDY

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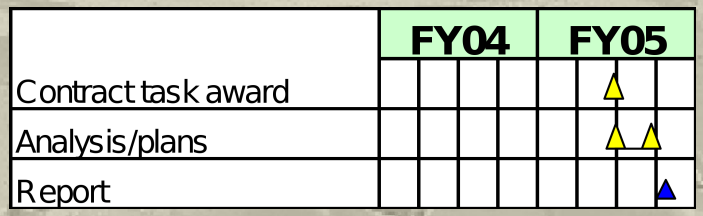
- *Purpose*:
  - Develop conceptual design and cost estimates for fighter size target
- Overview:
  - Design to replace QF-4, as economical alternative to QF-16
  - Alternative approach to confirm other industry estimates
    - Develop a design, schedule, cost estimates; O&S concept

Schedule:



Funding:

($K)	FY04	FY05	FY06	Total
Army TMO	$0	$0	$0	$0
OSD	$0	$65	$0	$65
Total	$0	$65	$0	$65

SUB-SCALE TARGETS

- *Purpose*:
  - Investigation of alternatives to MQM-107 for sub-scale operations

- *Overview:*
  - Looking for substantial cost savings (Approx. 75%) over current MQM-107 costs
  - Comparable performance
  - Innovative Launch techniques

BULLET & ROCKET SCORING

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- *Purpose*:
  - Investigation of air-to-ground scoring for attack helicopter weapons Training

- *Overview:*
  - Looking for improvements over current Bullet & Rocket Scoring systems currently fielded
    - Affordable
    - Portable
    - Adaptable to multiple ranges
    - Score Hits & Misses
    - User Friendly
    - Wireless
    - Low Maintenance

BULLET SENSOR

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- *Purpose*:
  - A Scoring System that is capable of immediately displaying to a soldier the precise strike of the bullet on a paper target at distances varying between 10 and 500 meters

- *Overview:*
  - The system must be rugged for outdoor use
  - Lightweight (under 50 pounds)
  - Unpacked, assembled and ready for operation in less than 20 minutes
  - Must accommodate 5.56mm & 7.62mm ammunition

INFRARED TARGETS

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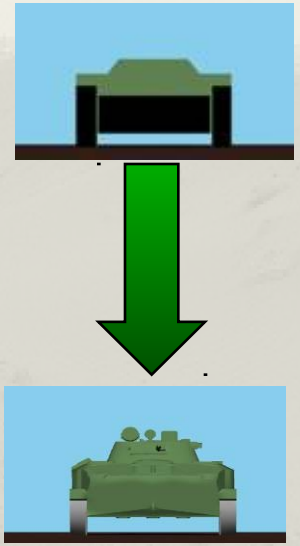
- *Purpose*:
  - Replace current technology plywood silhouettes with more realistic IR Target presentations at similar or reduced costs
- Overview:
  - Develop Innovative IR Target Design & Development Process for Use in the Production of Range Targets.
  - Solutions/Products are available to everyone
    - **TACOM-RI**
    - **TRADE**
    - **Marines**
    - **Navy**



From

To

SUMMARY

TMO

Targets Management Office

TMO:

- **FOCUSED ON THE WARFIGHTER, BEFORE, DURING AND AFTER THE FIGHT.**
- **JOINT DEVELOPMENT & COORDINATION CROSSES ALL OF OUR PRODUCT LINES.**
- **RECOGNIZES THAT "EVERYTHING" IS SOMEONE'S TARGET.**
- **STANDS READY TO RESPONSIVELY AND SUCCESSFULLY SUPPORT ALL T&E AND TRAINING REQUIREMENTS (BOTH DOMESTIC AND FOREIGN)**

"WE HELP YOU MAKE YOUR BEST SHOT!"

BACK-UPS

ACROYNM LIST

TMO

Targets Management Office

AFB	Air Force Base
AFOTEC	Air Force Operational Test and Evaluation
AGL	Above Ground Level
AMCOM	Aviationand Missile Command
AMRDEC	Aviation and Missile Research, Development and Engineering
APC	Aberdeen Proving Center
ATEC	Army Test and Evaluation Command
BATS	Ballistic Aerial Target System
CTC	Combat Training Center
DoD	Department of Defense
EUSA	Eighth U.S. Army
FORSCOM	United States Army Forces Command
IMO	Instrumentation Management Office
JRTC	Joint Readiness Training Center
km	Kilometer
lbs	Pounds
m	Meters
MCOTEA	US Marine Corps Operational Test and Evaluation Agency
MDA	Missile Defense Agency
NTC	National Training Center
PEO STRI	Program Executive Office Simulation, Training and Instrumentation
PEOs/PM	Program Executive Officer/Project Manager

ACROYNM LIST (cont'd)

TMO

Targets Management Office

PM ITTS	Project Manager for Instrumentation Targets and Threat Simulators
POC	Primary Operating Centers
RDEC	Research, Development, and Engineering Center
RPVT	Remotely Piloted Vehicle Targets
T&E	Test and Evaluation
TACOM	U.S. Army Tank-Automotive Command
TBMTT	Tactical Ballistic Missile Training Target
TMO	Targets Management Office
TRADOC	TRADOC - U.S. Army Training and Doctrine Command
TSMO	Threat Systems Management Office
U.S.	United States
UAV-T	Unmanned Aerial Vehicle-Target
USAF	United States Air Force
USAREUR	United States Army, Europe
USARPAC	United States Army, Pacific
USMC	United States Marine Corp
WSMR	White Sands Missile Range
YPC	Yuma Proving Center